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(54) Title: INTERACTIVE WEB-BASED SURVEY METHOD AND SYSTEM

(57) Abstract: An interactive web-based survey instrument and method that allows the application of different selection criteria for selecting a visitor to a web site as a survey participant. Selection criteria may be applied at a subscriber web site that is visited, such as random or periodic selection of visiting users. Moreover, the user's activities at the subscriber site may be monitored, such as number of web pages viewed, time spent viewing and so forth. Once a user meets the selection criteria, an additional screening process may be applied at a third-party, survey tracker site that administers the survey on behalf of the subscriber site. To apply the additional screening, the tracker site reads cookie data associated with the user, e.g., to determine if the user has recently taken a survey. Cookie data may be written after the user takes the survey so he will not be a repeat survey taker for a given time period. Operators of the subscriber sites view reports of the survey data through respective browsers, and may view site-specific survey data as well as an aggregate measure of survey data from other subscriber sites to allow comparisons therewith.

INTERACTIVE WEB-BASED SURVEY METHOD AND SYSTEM

This application claims the benefit of U.S. Provisional Patent Application No. 60/163,355, filed November 3, 1999.

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BACKGROUND OF THE INVENTION

The present invention relates to automated systems and methods for conducting surveys. More particularly, the present invention provides a method and system for conducting an interactive survey over a data communication network such as the Internet.

Survey instruments are an important method of gathering information in a wide variety of disciplines. Traditional delivery of survey instruments is accomplished either by paper documents or by voice interviews. Paper surveys have several well-known practical disadvantages. In particular, paper surveys are time consuming, expensive and inefficient to prepare, disseminate and retrieve, and coding the data from completed paper surveys is time consuming and error prone. Voice interviews also have several disadvantages, including the time and expense required to conduct the voice interviews. Moreover, some individuals may be likely to modify their answers in a voice interview situation, since they may feel self-conscious.

Computer-based survey instruments are known in the art and may be conducted via standalone programs or using a computer connected to a data communication network. However, survey instruments that are based on standalone computing programs suffer from the same distribution problems as paper-based surveys unless all participants are located in the same general area. Survey instruments that are conducted over a data communication network, such as the Internet, are significantly more efficient, but must be tailored for the network environment. In particular, the

efficacy of network-based survey instruments may suffer if the user population sampling is too large or too small, and/or if an individual is redundantly invited to participate in a survey. Determining the proper sample size is complicated by the fact that many persons who are invited to participate in the survey will decline or will only produce a partial response set. Furthermore, selecting a sample population that is too broad is an inconvenience to individuals who are required to take an active step to decline participation, such as reading a dialog box and clicking a "cancel" button. However, it is inconvenient and intrusive to the user to be asked repeatedly to participate in a survey. Moreover, duplicate survey results from the same user reduce the integrity of a survey.

Furthermore, current survey systems do not adequately address concerns regarding individual privacy and institutional affiliation. Survey instruments may cover very personal information and there are powerful reasons to keep such information private. Not only does response accuracy suffer if privacy guarantees are not reliable, but individual privacy rights under law, industry codes, and other standards may be compromised. Additionally, there may be an appearance of impropriety and actual or perceived conflicts of interest when an institution conducts a survey using internal resources.

Another disadvantage with current survey instruments of the types described above is the lack of facilities for fast, on-going access by the web site operators to automatically tabulated data, reports, and analysis such as trend indicators. In the web environment, changes occur very rapidly. Gathering up-to-the minute information is critical for assessing these rapid changes, since raw survey data alone may not produce a complete picture of what changes are occurring. Accordingly, there is a need for trend information that not only describes the survey result data but also describes how that data changes over time, including methods such as rate of change analysis, leading indicator detection and correlation with other variables, and other analytical techniques.

It is useful to have such trend information to allow each web site operator to compare its survey results to similar survey results from other web sites that offer a similar content theme or user profile (e.g.. demographics), or even different content themes or user profiles. For example, a given web site that offers health care information

may want to know how satisfied users are with its web site compared to other health care web sites. To this end, comparison to an average or other aggregate measure of the other web sites survey results would be very useful. Moreover, comparisons to web sites that offer different content themes are often useful. For example, a survey question such as "How often do you use this web site" is applicable to web sites with different content themes.

Moreover, such survey information is more useful if it is conveniently and automatically generated. Thus, there is a need for fast, on-going access to automatically provided survey results including up-to-the-minute report summaries, trend analysis, graphical displays and other data presentations. By having instant access to survey information, the web site operator realizes a significant competitive advantage. For example, the operator may make changes to the web site based on the survey data. The survey results should be accessible on-line by the operators of the surveyed sites.

Accordingly, it would be desirable to provide a method and system for conducting an interactive survey over a data communication network which provides flexibility in completing the survey; which allows the sample size to be selected, and eliminates redundant participation requests; and which guarantees personal privacy and reduces actual and perceived institutional conflicts of interest. Furthermore, it would be desirable to provide a survey method and system that tracks participant activity and survey responses across different web sites, and provides aggregated survey results.

The present invention provides a method and system having the above and other advantages.

SUMMARY OF THE INVENTION

It is an object of the present invention to solve the problems described above associated with existing approaches for conducting a survey over the Internet.

It is another object of the present invention to conduct a survey based on a sampling of potential participants that is random or based on some other selection criteria.

It is another object of the present invention to dynamically modify the sample size depending on participant behavior and other factors.

It is another object of the present invention to prevent redundant participation requests for a potential participant.

It is another object of the invention to monitor the survey-taking behavior of users across different web sites.

It is another object of the invention to allow users to request to participate in a survey, and to defer survey participation

It is another object of the invention to modify the course of the survey based on the participant's answers.

It is another object of the invention to modify the course of the survey based on information that is known *a priori* about the participant.

It is another object of the invention to obtain an aggregate measure of survey data across different web sites, having similar or different content themes, to provide an industry standard or benchmark for comparison against individual web sites.

It is another object of the present invention to provide a survey that maintains individual privacy of participants.

It is another object of the present invention to provide a survey through a trusted third party that may control all or some aspects of the operation of the survey.

The invention provides a system and method for conducting an interactive survey over a data communications network such as the Internet. The preferred embodiment is a web-based tracking tool designed for marketing managers and others to analyze the opinions, demographics, use patterns, and other information of users of their web sites. Moreover, while the invention is discussed particularly in connection with surveys in the healthcare or medical fields, it is applicable to surveys covering any subject.

The system may be linked with any existing web site to enable survey participation. A sampling methodology is used that may be dynamically modified. Moreover, redundant invitations to participate in the survey may be eliminated. Data collection and report formatting is processed in realtime to provide immediate access to formatted results, including graphical displays, trend analysis, and other analytical

techniques. The system is designed to enable privacy for participant responses and is run on a trusted third party system for improved integrity.

Web sites that subscribe to the tracker service, are also called subscriber sites or survey sites, invite users to complete a survey when the users access the respective sites. The tracker service is referred to as a HealthSite Tracker service when web sites relating to health information are surveyed. If the web site user decides to participate in the survey, the user is transparently transferred to another web site, called the survey tracker site.

Several factors may be used to filter/screen the participant selection process. For example, the survey system may be activated after a potential participant has viewed a specified number of webpages, or conducted a specific set of activities, such as filling out an online form or conducting an online transaction. Thus, potential participants who have not met these criteria are filtered out and temporarily removed from the pool of eligible participants. Or, users that have participated in surveys in other sites, having similar or different content, may be selected or de-selected for this reason.

Once a participant is selected and has decided to complete the survey, an application is launched at the participant web site to display a daughter window that transfers program control to the tracker web site, e.g., by opening a TCP/IP connection with the tracker web site. From the tracker web site, the survey is conducted based on a set of previously stored questions. Data input from each individual survey is collected by an interactive web form. After the data is collected from the individual survey, it is stored in a relational database through a web interface. Each of the records in the database is assigned a location and identity. Records stored in the database can be retrieved individually or as collective reports. A data reporting software package displays aggregated and collected data in easy to read format, including visual charts and other graphical representations summarizing the database information. Tabulated data is also prepared on a regular basis, which may be on daily, monthly, quarterly, or other basis. Data tabulations may also be produced at the end of each participant session to maintain up-to-the-minute information. At the end of set of reporting periods, typically every quarter, a summary analysis of the survey reports is provided.

The method and system may use a "three-tier client/server" approach in which a software code "cookie" is assigned to the web site user that enables queries to the tracker web server. Initially, subscribing web sites are provided a software activation code that is inserted on the individual pages of their web site. This is set up once for a survey operation. For each survey, the software code sets a "cookie" by depositing software code onto the users' computing system, in a manner known in the art. If a previous cookie has been deposited, then no new "cookie" is set. The "cookie" then enables survey processing by interacting with the tracker site. When the user is operating the survey system, the "cookie" reads survey pages and makes "calls" to the tracker server to request survey pages and other information. The server call function selects participants with the following queries: a query for selection based on previous visitor status, e.g. has a "cookie" been previously assigned?; a query for selecting a participant depending on the number of visitors to the site e.g. is this the Nth visitor?; a query for selection based on the number of pages viewed, e.g. is this the Mth page viewed?; a query for selection based on a previously deferred request to take survey, and/or a query based on other criteria. If user is selected, then the survey request process begins.

Once a user is selected, the survey delivery system is initiated. The survey delivery system initially displays a daughter window (pop-up window) on the participant's web browser screen on top of the web page they are currently viewing. A message on the daughter window requests voluntary participation in the survey process and offers the user a series of option buttons. If visitor chooses not to participate, and clicks the "No, thank you" button, the visitor is immediately returned to the subscriber web site page. If the visitor chooses to "Participate Later" in the survey, the window will minimize and allow the user to continue their Web Site surfing. If the visitor chooses to participate by clicking "Yes", then a new browser window containing the survey will open from the tracker site.

The interactive survey is served from the tracker web server. Thus, the survey is not administered on the subscriber's web site, and data entry occurs as a "client-side" function using the web browser as the vehicle for data entry. A previously prepared question set containing a database of questions is presented sequentially, or grouped into

pages, on the web site user's browser display. The survey consists of a series of open-ended and close-ended questions that allow a user to input selections and answers using their browser by selecting answers from web interface features including check boxes, radio buttons, text boxes and pull-down menus, as known in the art. Direct text entry, with optional error checking, is also available.

Additional modification of the survey may add, remove or modify questions to fit the individual subscriber's needs. Furthermore, the question set may be modified using conditional branch logic that determines the next question to ask based on a previous participant response. For example, if a participant indicates he lives in New York City, a follow-up question on the residential borough might be asked that would not otherwise appear for participants from other locations. Or, for a survey question of "Which health issue is most important to you – A, B or C?", the survey may branch to subsequent detailed questions in the selected area (A, B or C). Thus, the system provides the capability to modify the question presentation based on participant responses.

After completing the interactive survey, the participant clicks on a "submit" button or the like. Or, each question may be automatically submitted and stored at the tracker site, e.g., to allow the participant to complete the survey in different sessions.

Once the survey has been completed, a "Thank You" web page is presented to the participant. The participant can then click on the "Thank You" button and return to the original subscriber web site. After survey completion by the "client-side application", the data supplied from the survey administration is then sent to a data repository server for storage and later analysis or retrieval.

A back-end database-driven system for collecting storing, and processing the information is implemented on the tracker system. Responses to each survey question selection are sent to a repository location in the database as individual data sets. The back-end system is a custom database that allows for identification, comparison and aggregation of the data sets as required for the reporting process. The database schema provides an innovative method for storing, identifying and retrieving the data.

The survey interacts with the data repository using middleware software code that assigns it a location. The deposited survey response relies on custom software code to store the data into a data repository location. The data storage system uses a relational database that allows the data to be compiled and retrieved as required for the reporting process. A "middle" layer of programming logic works in concert with the stored data to support the storage, retrieval and compilation process.

In the preferred embodiment, the database engine is implemented using an Intel version of the Linux operating system running Adaptive Enterprise Server 11 by the Sybase Corporation, with the web transactions being served by an Apache web server. The Linux operating system provides both a well-documented, stable operating environment, and a robust programming environment. The preferred embodiment also uses a Practical Extraction and Report Language (PERL) application programmer interface (API), which allows a PERL interpreter to be embedded as a memory resident code module, also called a loadable server module, for improved efficiency.

However, virtually any software, hardware and/or firmware techniques may be used to carry out the invention.

Once the data are stored in the database according to its assigned location, custom software code retrieves, analyzes and formats the data. Data are compiled according to a reporting structure defined by a series of web page interfaces. These web page interfaces contain both reporting tables and dynamic graphs that display the compiled data for analysis. Periodically, such as at the end of each reporting day, or preferably in real time as the survey data is submitted, a custom software program complies the data and calls the compiled data into comparison tables for report generation.

The aggregated results from one or more collected surveys are retrieved from the database and may be accessed directly by the subscribers that conduct the surveys. Typically, these subscribers are the operators of the participating web sites. The subscriber may view the results represented on web pages in the form of concise charts, data tables, report summaries and other presentation formats for each question or group of questions. Moreover, comparison data allows each subscriber to compare his results to

an aggregate of results from other participant sites. These web pages can be password protected and may be made available via an Extranet, which is an intranet that is partially accessible to authorized outsiders, as known in the art. The charts and data tables that contain the survey results are updated on a regular basis, which may be daily or even more frequently, with the addition of each day's survey polling activity. Information for the past month, and current quarter, are posted side-by-side for easy comparison. Thus, in the preferred embodiment, the operators of each subscriber site can accesses the survey results through a personalized, password-protected web site, from which he can view and analyze the results. In addition to the daily report, an in-depth quarterly report, which is typically written by a market research professional, provides additional insight into the analysis of the data and provides aggregated comparisons to other industry sites. This report augments the raw survey data and automated tabulations, computations and presentations.

A "client" tier, represented by a custom software designed browser interface allows the subscribers to access the survey reports. The client tier or web site implementation includes custom software code using a combination of Hyper Text Markup Language (HTML), Java and JavaScript comprise the web interface programming.

Subscribers navigate through the Extranet using a browser to select the series of web pages that correspond to the survey's individual questions. The individual web pages also provide a daily updated report on the survey's compiled results for longer periods, which may be monthly and quarterly, by individual question administered in the survey.

Subscribers may view the survey data summaries in a variety of formats, including graphs, written and tabular reports, and supplemental report summaries. For example, a dynamic graphing process may allow data to be presented, for each survey question, in bar, pie and other style graphs. The graphics may also be images generated by Macromedia Generator, which constructs a Macromedia Flash movie image from a preformatted plain text file. The Macromedia Flash movie can then be transmitted to the client's browser, thus

supplementing other data presentations. These and other tools are used to provide analytical summaries of the survey data including trend analysis, and other analytical and statistical techniques. For example, the rate of change over one or more participant responses, leading indicator detection and correlation among questions or question groups, and other analytical, data mining or statistical techniques can be applied to the survey data.

Moreover, unlike most surveys that only report overall data responses, the present invention internally sorts and organizes the information in two distinct arrays for reporting and displaying. This capability is made possible by time records that are attached to each survey response stored in the database. Additionally, the survey data is automatically uploaded to the database at the end of a specified time period, which is typically at the end of each day. This allows the next day's report to reflect the previous day's activity. In this embodiment, a first array represents the current month activity. Once the subscriber calls a data report, the records are reported and displayed according to the current period. This feature allows the first report to display most recent activity. This data report is organized in a comparative manner and displayed using a variety of formats including dynamic graphs. The comparisons reflect variances by both percentages and actual numbers. A second array accumulates trend data for a longer period, e.g., three months. Trend data shows changes in the information in using a comparative methodology as known in the art. The trends may cover a short duration or may cover extended periods, including the life span of the survey. Trend data provide a continuous tracking capability to accurately monitor survey users. These data have a high value to a marketer or executive because they reflect changes in the users' opinions or attributes. Most key marketing decisions rely on trend data because they reduce the impact of current events or market fluctuations.

Moreover, a privacy policy is preferably employed to ensure confidentiality of participants' survey responses. To this end, the tracker site may use a secure server. Subscribers can confirm that their site does not violate any privacy regulations or industry codes, and that the survey process does not present any real or perceived conflicts of interest.

A particular method for obtaining survey data in a computer network that comprises a plurality of subscriber sites that are accessible to clients in a client population, includes selecting particular ones of the clients that access the respective subscriber sites for participation in respective surveys, wherein the respective surveys present at least one common question to the participating clients. The respective surveys are conducted on behalf of the respective subscriber sites via a common third-party tracker site, and data obtained from the respective surveys is processed to provide, for each respective subscriber site, a particular measure of survey data associated therewith, and at least one aggregate measure of survey data that is associated at least with other ones of the subscriber sites.

A further method is presented for selecting a client in a client population for participation in a survey at a subscriber site, wherein the subscriber site is accessible to the client via a computer network. The method includes determining whether the user meets survey participation criteria when the user visits the subscriber site, enabling the user to participate in the survey if the user meets the survey participation criteria, and providing a survey participation record that is associated with the user as a record of the user's participation in the survey. The survey participation record is associated with the user such that it can be used to determine whether the user should again be selected as a survey participant after a subsequent visit to the subscriber site.

A further method is presented for selecting a client in a client population for participation in a survey at a subscriber site, wherein the subscriber site is accessible to the client via a computer network. The method includes the step of determining whether the user meets survey participation criteria when the user visits the subscriber site by measuring the user's degree of interest in the subscriber site, and enabling the user to participate in the survey if a specified degree of interest is measured.

Corresponding apparatuses are also presented.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is illustrated in the figures of the accompanying drawings, which are meant to be exemplary, and not limiting, in which like references are intended to refer to like or corresponding parts, and in which:

FIG. 1 is a block diagram of a generalized survey delivery system in accordance with the present invention;

FIG. 2 is a flow diagram showing the operation of the survey delivery system in accordance with the present invention;

FIG. 3 is a diagram describing participant selection in accordance with the present invention;

FIG. 4 is a flow diagram for selecting survey participants and determining if the selected participant candidate has previously been selected to participate in the survey in accordance with the present invention;

FIG. 5 is a flow diagram showing a process for delivering a survey in accordance with the present invention;

FIG. 6 is a diagram showing the delivery of survey results to a subscriber browser in accordance with the present invention;

FIG. 7 is a flow diagram showing survey data collection, storage, retrieval and reporting in accordance with the present invention;

FIG. 8 is a diagram showing a database schema for storing and processing survey information in accordance with the present invention;

FIG. 9a is a sample report display screen in a bar chart format showing current and cumulative survey data for a single subscriber site in accordance with the present invention;

FIG. 9b is a sample report display screen in a bar chart format showing survey data for a single subscriber site and for an aggregate of other subscriber sites in accordance with the present invention;

FIG. 9c is a sample report display screen in a pie chart format showing current and cumulative survey data for a single subscriber site in accordance with the present invention;

FIG. 9d is a sample report display screen in a tabular format showing cumulative survey data for a single subscriber site in accordance with the present invention; and

FIG. 9e is a sample report display screen in a bar chart format showing cumulative survey data for a single subscriber site in accordance with the present invention;

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Embodiments of the present invention will now be described in detail with reference to the accompanying figures.

FIG. 1 is a block diagram of a generalized survey delivery system in accordance with the present invention. Example client users 102, 102', also called participants, operate respective computers, such as personal computers (PCs) to access a data network 115 such as the Internet. Typically, the users 102, 102' can access various web sites and web pages thereat according to associated Uniform Resource Locators (URLs). Web site servers 106, 106' are example web sites that participate in the survey process of the invention. The web sites 106, 106' may subscribe to an agreement, e.g., for a fee, to participate in the survey process with a tracker site 108, and are therefore also known as subscriber sites. However, the sites 106, 106' will be referred to herein as subscriber sites or participating sites regardless of whether a fee is paid or other specific arrangements are made with the tracker site 108.

While browsing a web site that is served from a subscriber site 106, 106', a user may be selected to participate in a survey based on initial survey participation filtering criteria that are applied at the subscriber site. If the user is selected based on these criteria, the user is transferred to the survey tracker site 108, which administers the survey and stores the results in a local database. Moreover, it is possible to apply additional survey participation filtering criteria at the tracker site. If the user meets the further criteria, if any, the survey is administered. If the user does not meet any further criteria that are imposed, the survey is not administered and control is transferred back to the subscriber site.

One primary reason for rejection at the tracker site is to avoid repeat survey takers. The tracker site reads cookie data from the user's computer, and writes cookie data to the user's computer, for this purpose. For example, assuming the user has met the subscriber site filtering criteria, and is a first time survey taker, the user has no

associated cookie data. Accordingly, the user is not rejected at the tracker site, and the survey is administered. After the survey is administered, a cookie is written to the user's computer that designates the user as a recent survey taker. Subsequently, if the user re-visits the subscriber site and is selected for participation based on the subscriber site's filtering criteria, the user may be rejected at the tracker site when the associated cookie data is read and it is determined that the user is a recent survey taker. Moreover, the tracker site can determine if the user is a recent survey taker at any of the participating sites and filter the selection process accordingly. For example, participation at a site having an unrelated content theme might be deemed acceptable, while participation at a site having a related theme may disqualify the user.

After completing the survey, or a portion thereof, the user's computer is transferred back to the subscriber site 106 to continue viewing the content there. Note that the user 102 establishes a connection, such as a TCP/IP connection with the subscriber site to view the content there. If the user is selected to participate in a survey at the subscriber site, a connection is established between the user 102 and the tracker site 108.

An example subscriber browser 114, such as an Internet browser operating on a PC, allows the operator of one or more of the subscriber sites 106, 106' to access the survey data collected by the tracker site 108. This may be achieved by establishing a connection between the browser 114 and the tracker site 108 via the network 115. Note that the subscriber site operators may operate one of more subscriber sites. Each operator has access to its own site-specific data, and to an aggregate measure of data from other sites, at the tracker site 108. Furthermore, a report-generating server may be associated with the tracker site 108 for generating reports that can be viewed by the subscriber site operators via their browsers.

Software segments presented in Appendix I support this process, and example sample survey questions for a subscriber site having a health information theme are shown in Appendix II.

FIG. 2 is a flow diagram showing the operation of the survey delivery system in accordance with the present invention. Initially, at block 202, software code is

provided to the participating subscriber sites to configure the sites to participate in the survey process. This software may provide an application that is launched at the participant web site when a user is selected to participate in a survey to display a daughter window that transfers program control to the tracker web site, e.g., by opening a TCP/IP connection between the user and the tracker web site. Thus, the user views a web site of the tracker server via the daughter window. The software also provides criteria for determining whether a user should be selected to participate in a survey. Advantageously, the tracker web site can configure different subscriber sites with different survey questions, different selection criteria and so forth. When it is desired to aggregate data from different web sites, this aggregation should be made based on survey data from common questions. Moreover, the subscriber sites can be configured or reconfigured at varying times as desired.

At block 204, after a user connects to a subscriber site, an initial determination is made at the subscriber site as to whether the user should be selected to participate in a survey. This may be achieved in various ways. For example, users may be selected randomly, or selected based on their activity at the subscriber sites, e.g., time connected, number of pages viewed or other measure of content that is accessed (e.g., number, type and/of amount of on-line audio/video presentations accessed), time spent per web page, number of pages viewed, and so forth. Thus, a measure may be made of the user's interest based on these and other factors for use in the selection process. Moreover, the user may be selected based on whether his conduct at the site evinces a high, medium or low interest. See also FIG. 4 regarding the selection process.

Furthermore, once the user meets the initial selection/filtering criteria, the user may be subject to additional selection criteria . For example, the tracker site may access the user's computer to see if any previously-written records, such as cookies, are present. This may provide further information regarding the user's interest in the site, such as how often the user visits the particular site or other sites, including related sites. For example, the cookies may indicate that the user has visited the current subscriber site three times in the last month, and has visited other specified sites twice in the last month.

The records may also indicate whether the user has agreed to participate in a survey on a deferred basis, or has already completed a portion of a survey.

Furthermore, it is possible to associate demographic data (e.g., age, address, location, gender) with the user for use in the selection process. For this purpose, a database having the demographic data is associated with the user based on some identifier, e.g., the user's e-mail address or name.

If the user is not selected based on the criteria applied against him, he is skipped (block 208), and the next potential participant is evaluated.

If the user is selected for participation in a survey, the subscriber site deposits (writes) a record, such as a cookie, on the user's computer (block 206), and control is transferred to the tracker site (block 210) for conducting the survey. Once the tracker site is activated, an appropriate survey instrument (block 212) is selected, e.g., based on a number of factors, most notably the site which the user is visiting. As mentioned, the survey questions may be customized for each subscriber site, although it is desired to have some common questions to provide an aggregate measure across different subscriber sites. The user completes the survey (block 214), and the survey results entered by the user are stored in a local database on the tracker site server (block 216). Database categories and segments are assigned for the survey data (block 218). After one or more participants have completed the survey, a set of reports, graphs, and data tables are built for each subscriber site (block 220).

Periodically, the subscriber site operators will desire to view the surveys results for their respective subscriber sites. To this end, a subscriber operator connects to the tracker site, or an associated report-generating site, via a browser, and retrieves the reports that have been generated (block 222), e.g., on a daily basis. Alternatively, the reports may be forwarded to the subscriber site operators, e.g., using e-mail, on a periodic or other pre-determined basis.

In an advantageous feature of the present invention, the tracker site can conduct surveys at multiple subscriber sites, and may aggregate data from these sites (block 224). For example, an aggregate measure may be provided for surveys questions that are common to the different subscriber sites. The aggregate measure may include

any desired statistical property, including average, mean, median, variance, skew, kurtosis, and so forth. Moreover, the data may be aggregated based on the content theme of the subscriber sites. For example, data may be aggregated separately for sites having a health care theme, a women's issues theme, a child care theme, and so forth. In this manner, a subscriber site operator can compare its survey results to an aggregate of other sites, e.g., which have the same or a different content theme. Also, the data can be aggregated for sites having different content themes. For example, a survey question such as "How often do you use this web site" is applicable to web sites with different content themes.

The tracker site translates the aggregate data to reports (block 226), e.g., when it is received, or on a periodic basis. Preferably, all available survey data is processed in real time so that the subscriber site operators always have the latest available information. Moreover, the survey data should be processed and organized so that it can be reported based on different criteria, such as time period, by question, by type of question, by some factor relating to the user (age, gender, level of site interest), and so forth.

At block 228, the subscriber retrieves the aggregate data reports.

FIG. 3 is a diagram describing participant selection in accordance with the present invention. Here, a user 102 is connected to a subscriber site 106 via the Internet 115. When the user meets the survey selection criteria at the subscriber, the user is connected to the tracker site 108, which checks for a cookie (block 310) on the user's computer 102. If no cookie is detected (block 304), then a cookie is set (e.g., to indicate that the user is a survey participant), and a user check is requested (block 308). That is, every time a user selects another page, the checking process is repeated.

At block 314, various selection criteria can be applied for selecting the user to participate in a survey. For example, it can be determined whether the user has viewed a web page at the subscriber site for a certain amount of time, or viewed a certain number of web pages, or whether the user is the Nth visitor to the subscriber site, or whether some other selection criteria are met.

For example, in one possible approach, the user is selected if he is the Nth user/visitor of the subscriber site (e.g., select every N visitors for the survey). If the user is not the Nth user, a user count is incremented and the system conditionally branches to set the cookie state to "no survey". Alternatively, or additionally, the cookie is processed by setting the cookie state to "need survey", and a counter is incremented each time the user views a web page on the subscriber site. When the page count threshold is met, the survey is selected. Otherwise, the page count is incremented as more pages are viewed.

At block 316, verification is made against a database at the tracker site for selection criteria. For example, the survey participation history of the user may be monitored so that a frequent survey taker is disqualified for a certain amount of time. Alternatively, it can be determined if the user has previously agreed to take a survey on a deferred basis.

If the user is selected to participate in a survey based on a match for the various applied criteria, the user is selected (block 320), and the survey is offered (block 326). However, if the survey participation criteria is not met, the user is rejected (block 322), and the survey is not offered (block 318). In either case, a cookie may be set on the user's computer 102 to preclude the user from taking another survey for a certain amount of time (block 324). This preclusion may be applied against the current subscriber site, and/or other related or unrelated subscriber sites. For example, the user may be precluded from taking another survey at another health care web site for a certain amount of time, but may be allowed to take a survey at a car care web site with no wait period.

FIG. 4 is a flow diagram for selecting survey participants and determining if the selected participant candidate has previously been selected to participate in the survey in accordance with the present invention. At block 402, a subscriber code is sent to the subscriber site. The subscriber code uniquely identifies the survey, and is used to match a survey participant with the proper survey instrument. This process is typically done only once over the life of the survey. After the subscriber code is embedded in the subscriber site, and the survey system has been made operational, one or more users enter the subscriber site (block 404). At block 406, the system checks for the existence of a cookie on the user's computer. If a cookie has already been set that indicates that the user

has already completed this survey at the present subscriber site and/or other surveys at other subscriber sites, then the user is skipped (block 408). Optionally, a check is made to see if an associated wait period has elapsed, in which case the user may be allowed to re-take the survey.

If no cookie is found on the user's computer, a fresh cookie is set there (block 410).

The application of example survey selection criteria is shown at blocks 414-420. In particular, the cookie is further processed at block 414 to determine if the user is a previous visitor to the subscriber site who has completed a survey. If so, control again passes to block 408 and this user is skipped. If the user is not a previous visitor, he remains eligible for selection. At block 416, if the user matches a designated visitor sequence, he remains eligible for selection. For example, the user may be skipped if he is not the Nth visitor (e.g., modulo N) to the subscriber site (e.g., the 100th, 200th, 300th visitor, etc.). Alternatively, a random number generator may select visitors at random intervals, e.g., the 53rd visitor, the 114th visitor, and so forth.

At block 418, if the user has viewed M web pages, he remains eligible for selection. Generally, this type of criteria involves monitoring the user's activity at the subscriber site to determine a measure of his interest in the site. For example, this may achieved by determining whether the user has viewed a given number of web pages, or viewed one or more web pages (or otherwise remain connected to the site) for a given period of time, or so forth.

At block 419, if the user meets other criteria that are evaluated, he remains eligible for selection. At block 420, the user may be given the choice, and may elect, to participate in the survey at a later time, e.g., on a deferred basis. If the user does not defer his participation, he remains eligible. At block 422, if the user meets all imposed selection criteria, the cookie is used to process page results, and the survey delivery process begins (block 424).

FIG. 5 is a flow diagram showing a process for delivering a survey (e.g., processing a survey participant session) in accordance with the present invention. After a user has been selected to participate in the survey (e.g., become a participant), the

subscriber site causes a daughter or pop-up window to be displayed at the participant's browser program (block 502). In block 504, the system confirms that the user will participate in the survey. If the participant does not accept participation, the user is skipped (block 508). This user's cookie is also updated indicating that the user elected not to participate in the survey. An appropriate action is made, such as withdrawing the user's eligibility for participating in a survey in the future for a given amount of time. The user may also postpone participation in the survey for an unspecified amount of time, or a given amount of time (i.e., until a given date) (block 510). Here, the user's cookie is also updated, but this time the cookie update indicates the user's interest in future participation so that the user is not entirely skipped in the future. If the user decides to delay, the user is skipped for the present survey session (block 508).

If the user has decided not to delay participation, control is passed to the tracker site (block 512). At block 514, a survey instrument (e.g., type of survey) is selected and may be modified depending on various factors, including previous participant responses or other factors. That is, the survey questions may be branched to different paths based on the user's answers to specific questions, e.g., to obtain more survey data for certain topics. As the survey is conducted (block 516), the participant responds to a sequence of survey questions. In particular, the participants are presented with a series of questions from the survey tracker site, which they answer in a web page form. This form may use any combination of web-enabled user interface features, such as check boxes, radio buttons, open-ended text answer questions, and other form fields that may include format control and error checking, as well as other custom user interface features which may be developed, e.g., such an a voce recognition and the like.

In block 518, the participant submits the results of his or her survey participation. The submission of results may occur after each response, after some number of responses or elapsed time, or at the completion of the survey. Preferably, the user responses are periodically stored at the tracker site to prevent the need to re-take the survey in the event of a network error, such as a loss of the connection between the user and the tracker site. These results are stored in a database of participant responses at the tracker site (block 520). At block 522, when the user has completed the survey or wishes

to exit, the participant session is terminated and control is transferred back to the subscriber site (block 524).

The transfer of the user's connection from the subscriber site to the tracker site, and back to the subscriber site, is preferably transparent to the user.

FIG. 6 is a diagram showing the delivery of survey results to a subscriber browser, and the generating of reports and other summaries from participant survey responses, in accordance with the present invention. After the user 102 completes a survey 604, and at a designated time (e.g., at an appropriate scheduling period), which may be hourly, daily or so forth, data 662 (including graphical data) from the survey 604 is transmitted to a generator/graphics server 664, which creates reports, charts, graphs and other data summaries 666. Moreover, these images are combined with data 660 (including numerical data) from the tracker site (which acts as a numerical data processing site) to form a series of client web site survey data pages, also called a subscriber report 668, which may be accessed by the subscriber browser 114. See example reports in FIGs 9a-9e.

A database query (block 606) refers to a cookie lookup that may be used to screen/filter survey participants, as discussed previously. The survey responses are submitted to the tracker site 108 to form the data 660.

Alternatively, the subscriber browser 114 may access the survey results directly from the tracker site 108, and the generator server need not be provided.

FIG. 7 is a flow diagram showing survey data collection, storage, retrieval and reporting in accordance with the present invention. The participant responses to the survey are processed to create summary reports and related materials. At block 702, survey data from a user session is stored in the database system on the tracker site. At block 704, the database is queried to gather data to produce the reports and supporting materials. At block 706, a series of graphic displays of the data are produced. At block 710, the summary reports are created. At block 712, when the subscriber site attempts to retrieve the survey data from the tracker site and/or the generator server, a subscriber login is preferably first verified to maintain confidentiality. At block 714, the report

views that are authorized for that subscriber site are selected, and at block 716, the corresponding views are displayed at the subscriber's browser.

FIG. 8 is a diagram showing a database schema for storing and processing survey information in accordance with the present invention. The database schema includes: corporate identification information 802 that identifies the subscriber; survey information 806; survey question information 810; question response information 814; survey results information 808; user information 812; and contact information 816. Global variables 804 are also provided.

With reference to FIGs 9a-9e, portions of example formatted reports are presented.

FIG. 9a is a sample report display screen in a bar chart format showing current and cumulative survey data for a single subscriber site in accordance with the present invention. The report 900 includes a contents region that lists the various survey questions. When the subscriber browser selects one of the questions, corresponding detailed survey results are presented. For example, a graphical display of current results 910, such as for the current month are provided, and a graphical display of cumulative results 915, such as for the past three moths, are provided. Moreover, tabular or numerical results are presented for the current period 920 and the cumulative period 925.

FIG. 9b is a sample report display screen in a bar chart format showing survey data for a single subscriber site and for an aggregate of other subscriber sites in accordance with the present invention. The report 930 includes aggregate data 935 that allows the subscriber site to compare its results to results from other sites in the same or different fields/industries. Note that actual results are not necessarily shown.

FIG. 9c is a sample report display screen in a pie chart format showing current and cumulative survey data for a single subscriber site in accordance with the present invention. The report 950 provides the survey response for the survey question 952, and includes a current month pie chart 954, a cumulative period pie chart 956, current month tabular data, and cumulative period tabular data.

FIG. 9d is a sample report display screen in a tabular format showing cumulative survey data for a single subscriber site in accordance with the present

invention. The report 970 provides detailed responses to the selected question 973, and includes a tabular data region 975 for a cumulative period.

FIG. 9e is a sample report display screen in a bar chart format showing cumulative survey data for a single subscriber site in accordance with the present invention. The report 980 provides detailed responses to the selected question 982, and includes a multi-bar region 984 for a cumulative period, and a tabular region 986 for the cumulative period. In the multi-bar region, for each group of three bars, the top bar refers to selection "a", the middle bar refers to selection "b", and the bottom bar refers to selection "c". Color coding of the bars can be used to provide this information.

Accordingly, it can be seen that the present invention provides an interactive web-based survey method and system that allows the application of different selection criteria for selecting a visitor to a web site as a survey participant. Selection criteria may be applied at a subscriber web site that is visited, such as random or periodic selection of visiting users. Moreover, the user's activities at the subscriber site may be monitored, such as number of web pages viewed, time spent viewing and so forth. Once a user meets the selection criteria, an additional screening process may be applied at a third-party, survey tracker site that administers the survey on behalf of the subscriber site. To apply the additional screening, the tracker site reads cookie data associated with the user, e.g., to determine if the user has recently taken a survey. Cookie data may be written after the user takes the survey so he will not be a repeat survey taker for a given time period. Operators of the subscriber sites view reports of the survey data through respective browsers, and may view site-specific survey data as well as an aggregate measure of survey data from other subscriber sites to allow comparisons therewith.

While the invention has been described and illustrated in connection with preferred embodiments, many variations and modifications as will be evident to those skilled in this art may be made without departing from the spirit and scope of the invention, and the invention is thus not to be limited to the precise details of methodology or construction set forth above as such variations and modification are intended to be included within the scope of the invention.

Appendix I: Code Listing

Part 1: Line of Code in Each Client Site Page:

```
<SCRIPT
SRC="http://www.healthsitetracker.com/nameofclient/hst_nameo
fclient.js"></SCRIPT>
```

Part 2: Full Text of JavaScript: hst_nameofclient.js

```
/* HealthSite Tracker Pop-up Script
Author: Strategic Domain
     --unless noted--
*/

// Global Variables set depending on client
var ClientName = "test";
var PageActivation = "4";
var CookieExpMinor = "10";
var CookieExpMajor = "30";

// Cookie Variables
var CurrentPage;
var CurrentExp;
var SurveyStatus;
var cookie_information = new Array();

// Does Survey Cookie Exist
function isCookie(name) {
    if(document.cookie == '') { // there's no cookie, so go
no further
          return false;
    }
    else { // there is a cookie
          var firstChar, lastChar;
          var theBigCookie = document.cookie;
          // alert(theBigCookie);
          firstChar = theBigCookie.indexOf(name); // find
the start of 'name'
          var NN2Hack = firstChar + name.length;
          if((firstChar != -1) &&
(theBigCookie.charAt(NN2Hack) == '=')) { // if you found the
cookie
               firstChar += name.length + 1; // skip 'name'
and '='
               lastChar = theBigCookie.indexOf(';',
firstChar); // Find the end of the value string (i.e. the
next ';').
```

```
            if(lastChar == -1) lastChar =
theBigCookie.length;

readTheCookie(theBigCookie.substring(firstChar,
lastChar),cookie_information);
            return true
          }
          else { // If there was no cookie of that name,
return false.
            return false;
          }
    }
}

//Read and Load Survey Cookie Properties
function readTheCookie(the_cookie,the_info){
     the_cookie = unescape(the_cookie);
     var cookie_values = the_cookie.split("/");
     var property_value = "";
     for (loop = 0; loop < cookie_values.length; loop++) {
          property_value = cookie_values[loop];
          var broken_info = property_value.split(":");
          var the_property = broken_info[0];
          var the_value = broken_info[1];
          the_info[the_property] = the_value;
     }
}

// Check if User is the Nth Visitor
function isVisitor() {
     return true
}

// Does User Need to Take Survey
function needSurvey() {
     if (cookie_information["survey"] == "true") {
          return true;
     }
     else {
          return false;
     }
}

// Has User Viewed Min. Amount of Pages
function SurveyReady() {
     if (cookie_information["page"] == PageActivation) {
          return true;
     }
     else {
          return false;
```

```
     }
}

// Set Cookie -- User Needs to Take Survey
function SurveyStart() {
     addCookie("true", "1", CookieExpMajor);
}

// Set Cookie -- No Survey at This Time
function SurveyIgnore() {
     addCookie("false", "5", CookieExpMinor);
}

// User has viewed another page
function addPageVisit() {
     CurrentPage = parseInt(cookie_information["page"])
     nextPage = CurrentPage + 1;
     addCookie("true", nextPage, CookieExpMinor);
}

// Main Set Cookie Function
function addCookie(survey, page, expDays) {
     var expHours = expDays * 24;
     var the_cookie_date = (new Date((new Date()).getTime()
+ expHours*3600000)).toGMTString();
     var the_cookie = "survey:" + survey + "/page:" + page;
     name = "HSTsurvey"
     path = "/";
     domain = "soliddreams.com";
     final_cookie = name + '=' + escape(the_cookie) +
((the_cookie_date)?(';expires=' + the_cookie_date):''); //
Set the cookie, adding any parameters that were specified.
     // alert(final_cookie);
     document.cookie = final_cookie;
}

// Launch Survey, Reset Cookie
function goHSTsurvey() {
     addCookie("false", "5", CookieExpMajor);
     var HSTurl =
"http://dev.healthsitetracker.com/healthsitetrack.mpl";
     window.open(HSTurl,"Survey","toolbar=yes,status=yes,wid
th=640,height=400");
}


/* HST Survey function
add to all clients pages as follows

in <HEAD> add:
```

```
     <SCRIPT
SRC="http://www.healthsitetracker.com/nameofclient/hst_nameo
fclient.js"></SCRIPT>

*/
function HSTmain() {
     var CookieStatus = isCookie("HSTsurvey");
     if (CookieStatus) {
          var SurveyStatus = needSurvey()
          if (SurveyStatus) {
               var Ready = SurveyReady();
               if (Ready) {
                    goHSTsurvey();
               }
               else {
                    addPageVisit();
               }
          }
     }
     else {
          if (isVisitor()) {
               SurveyStart();
               alert("Start Cookie");
          }
          else {
               alert("Ignore Cookie");
               SurveyIgnore();
          }
     }
}

HSTmain();
```

Appendix II: Sample Question Set

1. What was your reason for coming to this site today (check all that apply)?

Find information about a disease or condition
Find information about a product or drug
Learn about medical news
Find company financial/investment information
Find out about employment opportunities
Find other company information
Communicate with other people
Other

2. Which of the following best describes you (check one)?

Invididual seeking healthcare information
Physician
Other healthcare professional
Student
Investor
Job seeker
Other

3. How often have you visited this web site?

First time
Once before
3-4 times
5 or more times

4. If you have visited this site before, when was your last visit?

Today
Within the past week
Within the past month
Within the past three months
More than three months ago

5. How did you find out about this site, the first time you visited?

Search engine
Link from another site
Referred by a friend or colleague
Referred by your physician or other healthcare professional
TV, magazine, or newspaper

Medical professional journal
Product package or brochure
Other

6. What is your overall opinion of this web site?

Excellent
Very Good
Good
Fair
Poor

7. Indicate whether you strongly agree, mildly agree, are neutral, mildly disagree, or strongly disagree with the following statements about this site?

I found what I was looking for
I expect to use this site in the future
I like the look and feel of this site
This site is easy to navigate
The content of this site is highly useful to me
The information on this site is trustworthy

8. Please use the space below to make any comments you may have about this web site (optional):

9. Which of the following topics are of interest to you (check all that apply):

Allergies	digestive/gastric conditions	liver conditions	Psychoses
Alzheimer's disease	eating disorders	menopause	respiratory conditions
Antibiotics	epilepsy	mental health	sexual disorders
Arthritis	fungal infections	migraine headaches	sexually transmitted diseases
Asthma	heart conditions	multiple sclerosis	sleep disorders
breast cancer	HIV/AIDS	muscle conditions	skin conditions
blood disorders	Hypertension	nutrition	smoking cessation
Cholesterol	Incontinence	osteoporosis	thyroid conditions
colon cancer	Infertility	pain management	transplants
Depression or anxiety	kidney conditions	Parkinson's disease	weight loss
Diabetes	Leukemia	pediatric illnesses	wound healing

10. Which of the following sites have you visited in the past month (check all that apply)?

AMA Health Insights	Mediconsult
America's Doctor	Medscape
AOL Health Channel	OnHealth.com
Better Health	Parent Soup
Discovery Health	Phys
Dr. Koop's	Physicians Online
Health A-Z	Thrive Online
Healthy Ideas	Web MD/Healtheon
Intelihealth	Women.com
iVillage	Women in the Know
Mayo Health Oasis	Yahoo Health

11. For each of the following, please indicate if you currently use, would like to use, or have no interest in using, the World Wide Web.

Find information about diseases and conditions
Find information about drugs
Learn about medical news
Find health insurance information
Purchase medication and/or healthcare products
Submit and check on healthcare insurance claims
Physician/patient communication
Personalized medical advice

12. How do you use the information from healthcare web sites (check all that apply)?

To discuss with your physician
To understand personal health issues
To understand family members' health issues
For general information
For business
To help manage personal investments
For professional education
Other

13. How long have you been using the World Wide Web?

Less than 1 month
1-6 months
6-12 months
1-2 years

Over 2 years

14. About how often do you use the World Wide Web, other than for e-mail?

More than once a day
About once a day
Three to six times a week
One to two times a week
One to two times a month
Less often than once a month

15. Where is the computer you are currently using located?

Home
Home office
Business or office, not at home
School, college, or university
Other

16. Are you...
Male
Female

17. What is your age?
Under 18
18-24
25-34
35-49
50-64
65 or older

18. What is your marital status?
Single
Married or living with partner
Divorced/Separated
Widowed

19. Do you currently have children under 18 living with you?

Yes
No

20. What is the highest education level you have completed?

Some high school or less

High school graduate
Trade, technical or vocational school
Some college
College graduate
Post graduate

21. Which of the following best describes your employment?

Work full time
Work part time
Homemaker
Student
Temporarily unemployed
Retired

22. Which of the following best describes your total household income?

(categories listed)

23. In what country do you reside?

(Countries listed)

24. Would you be interested in participating in future Internet healthcare surveys?

Yes
No

If yes, please provide your name and e-mail address in the boxes below.

This information will only be used for research purposes. You will not be contacted for any other reason, and your information will not be shared with any other organization.

What is claimed is:

1. A method for obtaining survey data in a computer network that comprises a plurality of subscriber sites that are accessible to clients in a client population, comprising:

selecting particular ones of the clients that access the respective subscriber sites for participation in respective surveys, wherein the respective surveys present at least one common question to the participating clients;

conducting the respective surveys on behalf of the respective subscriber sites via a common third-party tracker site; and

processing data obtained from the respective surveys to provide, for each respective subscriber site, a particular measure of survey data associated therewith, and at least one aggregate measure of survey data that is associated at least with other ones of the subscriber sites.

2. The method of claim 1, wherein:

the subscriber sites comprise respective web sites.

3. The method of claim 1, wherein:

the tracker site comprises a web site.

4. The method of claim 1, wherein:

the particular measure and the aggregate measure are provided for the at least one common question.

5. The method of claim 1, wherein:

the aggregate measure comprises at least one of an average, median, mean and variance.

6. The method of claim 1, further comprising:

enabling operators that are associated with the respective subscriber sites to access the respective particular measure and the respective aggregate measure via respective subscriber browsers.

7. The method of claim 1, further comprising:

processing the respective particular measures and the respective aggregate measures for each of the respective subscriber sites to provide respective survey report data.

8. The method of claim 7, further comprising:

enabling operators that are associated with the respective subscriber sites to access the respective survey report data via respective subscriber browsers.

9. The method of claim 1, further comprising:

processing the survey data from the respective subscriber sites at a graphics generating site to provide respective report graphics, and at a numerical data processing site to provide respective numerical data; and

enabling operators that are associated with the respective subscriber sites to access the respective report graphics and respective numerical data via respective subscriber browsers.

10. The method of claim 1, further comprising:

generating reports for operators of the subscriber sites that display the respective particular measure and the respective aggregate measure.

11. The method of claim 1, wherein:

the subscriber sites have at least one of a common content theme and a common user profile

12. The method of claim 1, wherein:

the surveys are conducted on behalf of the respective subscriber sites via the third-party tracker site by launching respective applications at the respective subscriber sites that connect the participating clients to the third-party tracker site.

13. The method of claim 1, wherein:

the clients use respective web sites to access the respective subscriber sites.

14. The method of claim 1, further comprising:

providing configuration data to the respective subscriber sites to configure the respective subscriber sites to select clients for participation in the surveys thereof in accordance with respective survey selection criteria.

15. The method of claim 14, wherein:

the configuration data is provided to the respective subscriber sites from the third-party tracker site.

16. The method of claim 14, further comprising:

the respective survey selection criteria is customized for at least some of the respective subscriber sites.

17. An apparatus for obtaining survey data in a computer network that comprises a plurality of subscriber sites that are accessible to clients in a client population, comprising:

a plurality of subscriber sites, each respective subscriber site selecting particular ones of the clients that access the respective subscriber site for participation in a respective survey, wherein the respective surveys present at least one common question to the participating clients;

a common third-party tracker site for conducting the respective surveys on behalf of the respective subscriber sites; and

a processor for processing data obtained from the respective surveys to provide, for each respective subscriber site, a particular measure of survey data associated therewith, and at least one aggregate measure of survey data that is associated at least with other ones of the subscriber sites.

18. A method for selecting a client in a client population for participation in a survey at a subscriber site, wherein the subscriber site is accessible to the client via a computer network, comprising:

determining whether the user meets survey participation criteria when the user visits the subscriber site;

enabling the user to participate in the survey if the user meets the survey participation criteria; and

providing a survey participation record that is associated with the user as a record of the user's participation in the survey;

wherein the survey participation record is associated with the user such that it can be used to determine whether the user should again be selected as a survey participant after a subsequent visit to the subscriber site.

19. The method of claim 18, wherein:

the survey participation record comprises cookie data that is written to a computer used by the user.

20. The method of claim 19, wherein:

the user is enabled to participate in the survey by connecting the user to a third-party tracker site; and

the cookie data is written to the computer used by the user by the third-party tracker site.

21. The method of claim 18, wherein:

the user is enabled to participate in the survey by connecting the user to a third-party tracker site.

22. The method of claim 18, wherein:

the user is eligible to participate in respective surveys at a plurality of respective subscriber sites; and

respective survey participation records are provided that are associated with the user as a record of the user's participation in the respective surveys.

23. The method of claim 22, wherein:

the survey participation records are associated with the user such that they can be used to determine whether the user should again be selected as a survey participant after a subsequent visit to any of the subscriber sites.

24. The method of claim 18, wherein:

the user is precluded from being again selected as a survey participant after a subsequent visit to the subscriber site for a specified amount of time following the providing of the survey participation record.

25. The method of claim 18, wherein:

the survey participation criteria comprises randomly selecting every Nth visitor to the subscriber site.

26. The method of claim 18, wherein:

the survey participation criteria comprises exhibiting a specified degree of interest in the subscriber site.

27. The method of claim 18, wherein:

the survey participation criteria comprises viewing a specified number of web pages at the subscriber site.

28. The method of claim 18, wherein:

the survey participation criteria comprises viewing at least one web page at the subscriber site for a specified duration.

29. The method of claim 18, further comprising:

enabling the user to register to participate in a future survey at the subscriber site.

30. The method of claim 18, further comprising:

enabling the user to elect to participate in the survey on a deferred basis if the user meets the survey participation criteria; and

providing a further survey participation record that is associated with the user as a record of the user's election of deferred participation;

wherein the further survey participation record is associated with the user such that it can be used to determine whether the user should again be selected as a survey participant after a subsequent visit to the subscriber site.

31. The method of claim 18, further comprising:

importing demographic data regarding the user for use in determining whether the user meets the survey participation criteria.

32. The method of claim 18, further comprising:

during the user's participation in the survey, selecting one of a plurality of branches of questions of the survey based on the user's response to at least one previous question in the survey.

33. An apparatus for selecting a client in a client population for participation in a survey at a subscriber site, wherein the subscriber site is accessible to the client via a computer network, comprising:

at least one server for determining whether the user meets survey participation criteria when the user visits the subscriber site, and providing a survey participation record that is associated with the user as a record of the user's participation in the survey; wherein:

the user is enabled to participate in the survey if the user meets the survey participation criteria; and

the survey participation record is associated with the user such that it can be used to determine whether the user should again be selected as a survey participant after a subsequent visit to the subscriber site.

34. A method for selecting a client in a client population for participation in a survey at a subscriber site, wherein the subscriber site is accessible to the client via a computer network, comprising:

determining whether the user meets survey participation criteria when the user visits the subscriber site by measuring the user's degree of interest in the subscriber site; and

enabling the user to participate in the survey if a specified degree of interest is measured.

35. The method of claim 34, wherein:

the user's degree of interest is measured by determining a number of web pages viewed by the user at the subscriber site.

36. The method of claim 34, wherein:

the user's degree of interest is measured by determining a duration during which the user views at least one web page at the subscriber site.

37. An apparatus for selecting a client in a client population for participation in a survey at a subscriber site, wherein the subscriber site is accessible to the client via a computer network, comprising:

at least one server for determining whether the user meets survey participation criteria when the user visits the subscriber site by measuring the user's degree of interest in the subscriber site, and enabling the user to participate in the survey if a specified degree of interest is measured.

FIG. 1

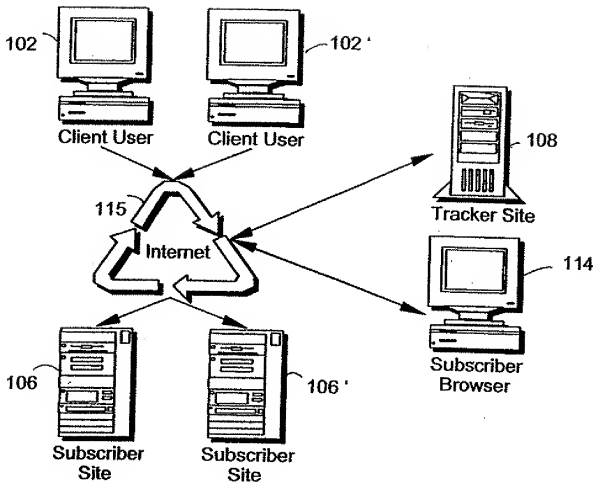

102
102 '
Client User
Client User
108
Tracker Site
115
Internet
114
Subscriber
Browser
106
106 '
Subscriber
Site
Subscriber
Site

FIG. 2

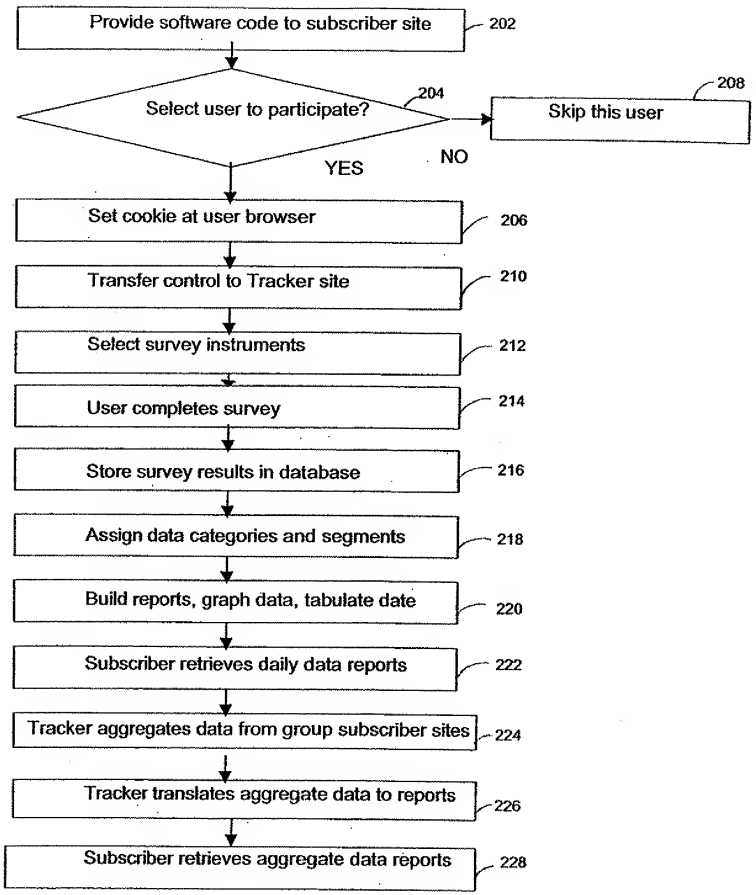

Provide software code to subscriber site
202
Select user to participate?
204
Skip this user
208
NO
YES
Set cookie at user browser
206
Transfer control to Tracker site
210
Select survey instruments
212
User completes survey
214
Store survey results in database
216
Assign data categories and segments
218
Build reports, graph data, tabulate date
220
Subscriber retrieves daily data reports
222
Tracker aggregates data from group subscriber sites
224
Tracker translates aggregate data to reports
226
Subscriber retrieves aggregate data reports
228

FIG. 3

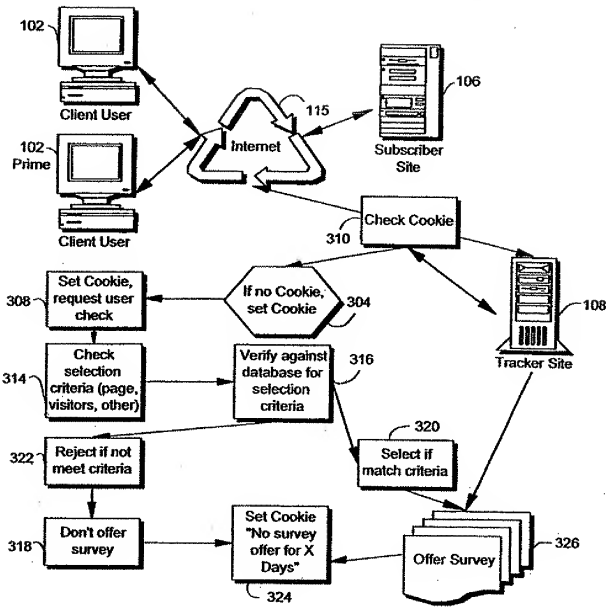

102
Client User
102
Prime
Client User
115
Internet
106
Subscriber Site
Check Cookie
310
If no Cookie, set Cookie
304
Set Cookie, request user check
308
Check selection criteria (page, visitors, other)
314
Verify against database for selection criteria
316
Reject if not meet criteria
322
Select if match criteria
320
Don't offer survey
318
Set Cookie "No survey offer for X Days"
324
Offer Survey
326
Tracker Site
108

FIG. 4

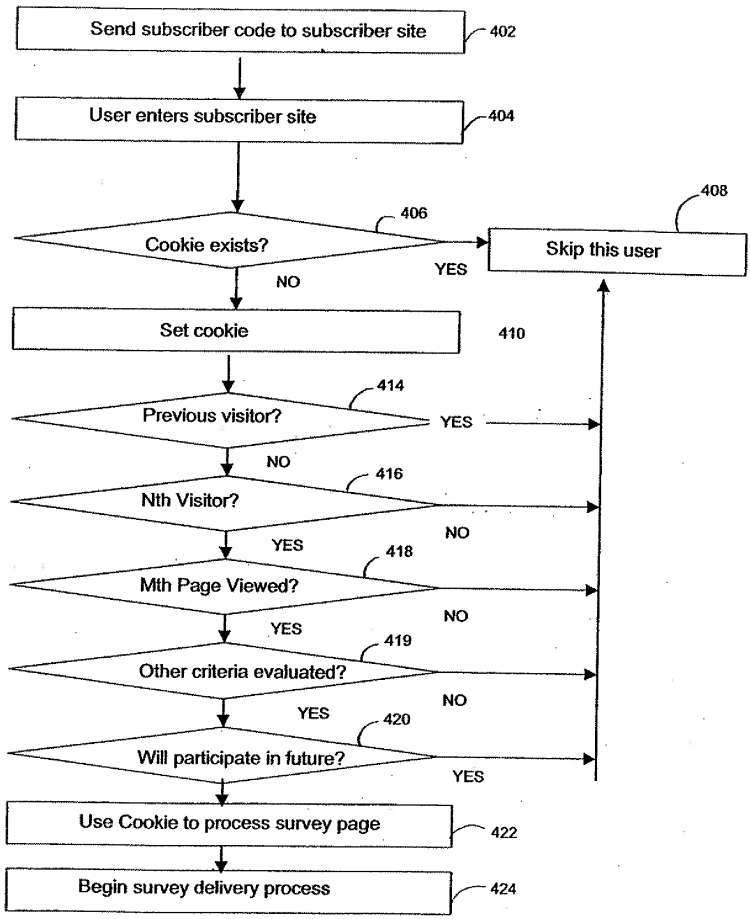

Send subscriber code to subscriber site
402
User enters subscriber site
404
Cookie exists?
406
YES
Skip this user
408
NO
Set cookie
410
Previous visitor?
414
YES
NO
Nth Visitor?
416
YES
NO
Mth Page Viewed?
418
YES
NO
Other criteria evaluated?
419
YES
NO
Will participate in future?
420
YES
Use Cookie to process survey page
422
Begin survey delivery process
424

FIG. 5

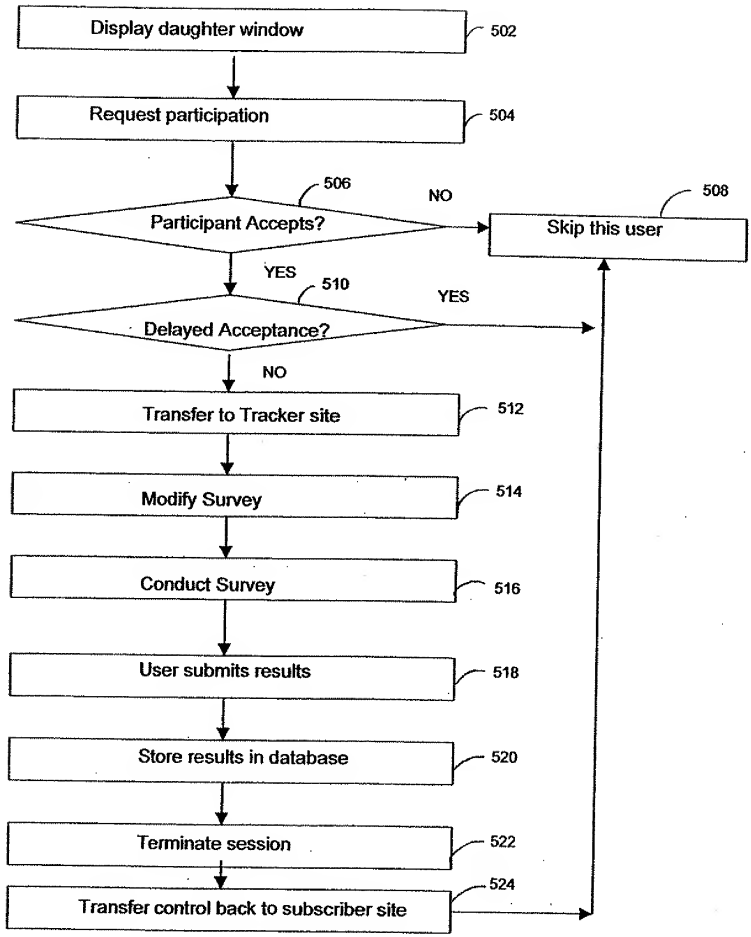

Display daughter window
502
Request participation
504
506
Participant Accepts?
NO
508
Skip this user
YES
510
Delayed Acceptance?
YES
NO
Transfer to Tracker site
512
Modify Survey
514
Conduct Survey
516
User submits results
518
Store results in database
520
Terminate session
522
524
Transfer control back to subscriber site

FIG. 6

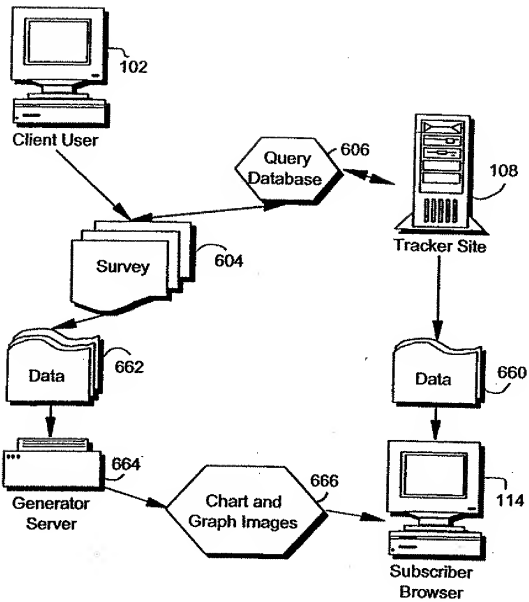

102
Client User
Query Database
606
108
Tracker Site
Survey
604
Data
662
Data
660
664
Generator Server
Chart and Graph Images
666
114
Subscriber Browser

Fig. 7

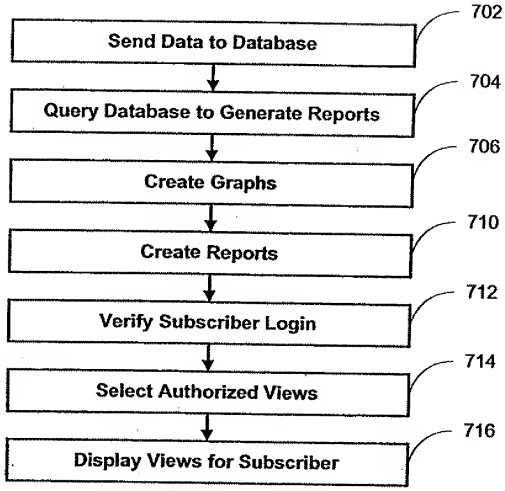
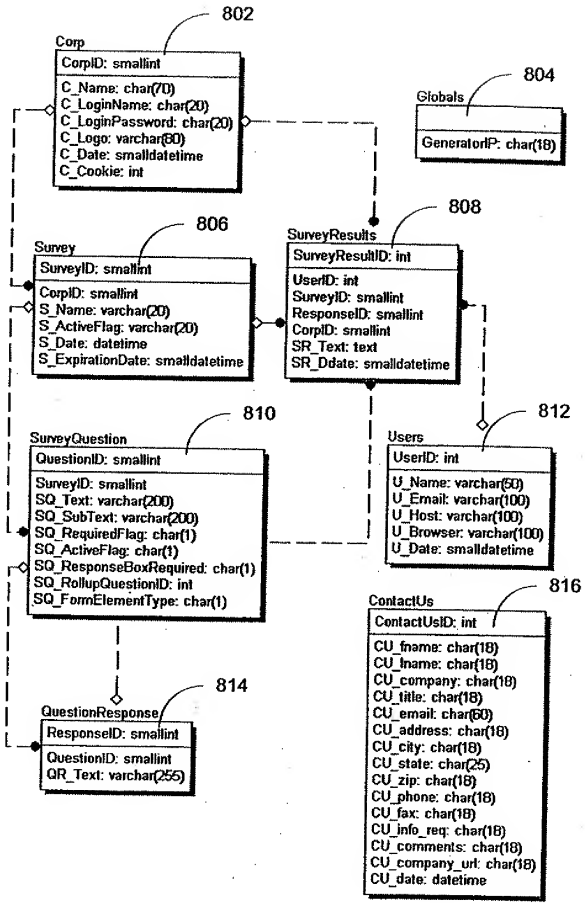
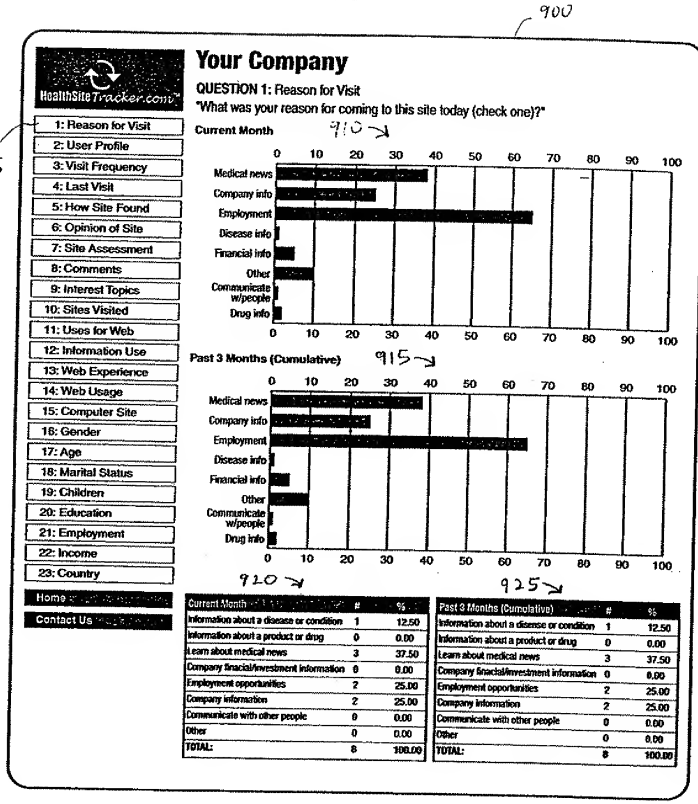

Send Data to Database
702
Query Database to Generate Reports
704
Create Graphs
706
Create Reports
710
Verify Subscriber Login
712
Select Authorized Views
714
Display Views for Subscriber
716

Fig. 8


802
Corp
CorpID: smallint
C_Name: char(70)
C_LoginName: char(20)
C_LoginPassword: char(20)
C_Logo: varchar(80)
C_Date: smalldatetime
C_Cookie: int
804
Globals
GeneratorIP: char(18)
806
Survey
SurveyID: smallint
CorpID: smallint
S_Name: varchar(20)
S_ActiveFlag: varchar(20)
S_Date: datetime
S_ExpirationDate: smalldatetime
808
SurveyResults
SurveyResultID: int
UserID: int
SurveyID: smallint
ResponseID: smallint
CorpID: smallint
SR_Text: text
SR_Ddate: smalldatetime
810
SurveyQuestion
QuestionID: smallint
SurveyID: smallint
SQ_Text: varchar(200)
SQ_SubText: varchar(200)
SQ_RequiredFlag: char(1)
SQ_ActiveFlag: char(1)
SQ_ResponseBoxRequired: char(1)
SQ_RollupQuestionID: int
SQ_FormElementType: char(1)
812
Users
UserID: int
U_Name: varchar(50)
U_Email: varchar(100)
U_Host: varchar(100)
U_Browser: varchar(100)
U_Date: smalldatetime
816
ContactUs
ContactUsID: int
CU_fname: char(18)
CU_lname: char(18)
CU_company: char(18)
CU_title: char(18)
CU_email: char(60)
CU_address: char(18)
CU_city: char(18)
CU_state: char(25)
CU_zip: char(18)
CU_phone: char(18)
CU_fax: char(18)
CU_info_req: char(18)
CU_comments: char(18)
CU_company_url: char(18)
CU_date: datetime
814
QuestionResponse
ResponseID: smallint
QuestionID: smallint
QR_Text: varchar(255)

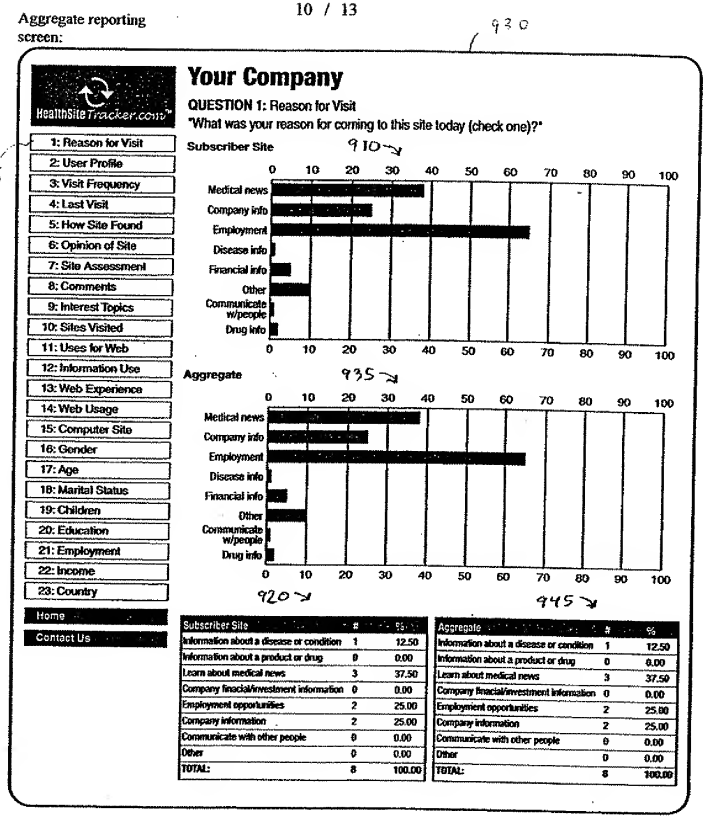


Current Month	#	%
Information about a disease or condition	1	12.50
Information about a product or drug	0	0.00
Learn about medical news	3	37.50
Company financial/investment information	0	0.00
Employment opportunities	2	25.00
Company information	2	25.00
Communicate with other people	0	0.00
Other	0	0.00
TOTAL:	8	100.00

Past 3 Months (Cumulative)	#	%
Information about a disease or condition	1	12.50
Information about a product or drug	0	0.00
Learn about medical news	3	37.50
Company financial/investment information	0	0.00
Employment opportunities	2	25.00
Company information	2	25.00
Communicate with other people	0	0.00
Other	0	0.00
TOTAL:	8	100.00

FIG. 9a

Aggregate reporting screen:



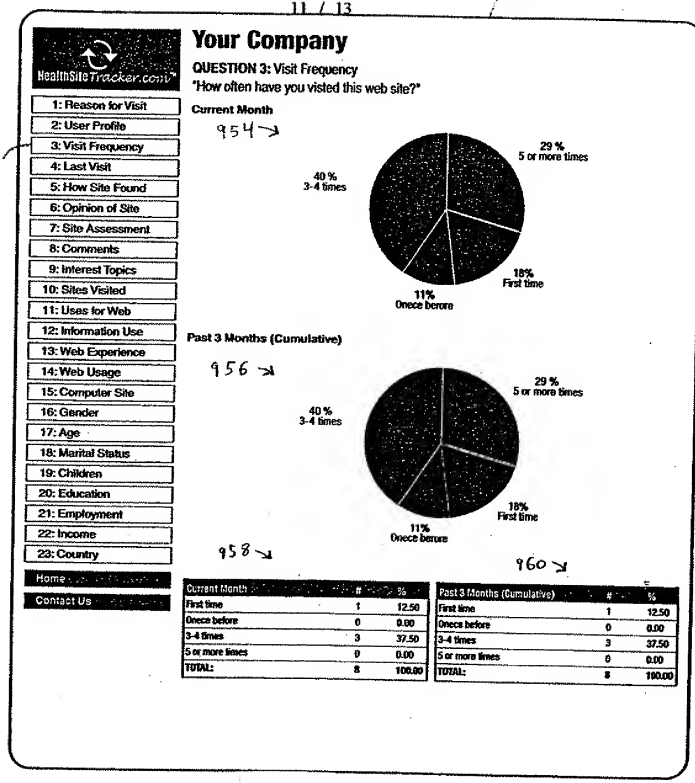
Subscriber Site	#	%
Information about a disease or condition	1	12.50
Information about a product or drug	0	0.00
Learn about medical news	3	37.50
Company financial/investment information	0	0.00
Employment opportunities	2	25.00
Company information	2	25.00
Communicate with other people	0	0.00
Other	0	0.00
TOTAL:	8	100.00

Aggregate	#	%
Information about a disease or condition	1	12.50
Information about a product or drug	0	0.00
Learn about medical news	3	37.50
Company financial/investment information	0	0.00
Employment opportunities	2	25.00
Company information	2	25.00
Communicate with other people	0	0.00
Other	0	0.00
TOTAL:	8	100.00

FIG. 9b

950

952



Current Month	#	%
First time	1	12.50
Onece before	0	0.00
3-4 times	3	37.50
5 or more times	0	0.00
TOTAL:	8	100.00

Past 3 Months (Cumulative)	#	%
First time	1	12.50
Onece before	0	0.00
3-4 times	3	37.50
5 or more times	0	0.00
TOTAL:	8	100.00

FIG. 9c

970

HealthSiteTracker.com

- 1: Reason for Visit
- 2: User Profile
- 3: Visit Frequency
- 4: Last Visit
- 5: How Site Found
- 6: Opinion of Site
- 7: Site Assessment
- 8: Comments
- 9: Interest Topics
- 10: Sites Visited
- 11: Uses for Web
- 12: Information Use
- 13: Web Experience
- 14: Web Usage
- 15: Computer Site
- 16: Gender
- 17: Age
- 18: Marital Status
- 19: Children
- 20: Education
- 21: Employment
- 22: Income
- 23: Country
- Home
- Contact Us

972

Your Company

QUESTION 9: Interest Topics

"Which of the following topics are of most interest to you (check all that apply)?"

Past 3 Months (Cumulative) ≤ 975

Category	%
allergies	7
Alzheimer's disease	0
antibiotics	7
arthritis	7
asthma	0
breast cancer	0
blood disorders	0
cholesterol	0
colon cancer	7
depression or anxiety	0
diabetes	7
digestive/gastric conditions	0
eating disorders	0
epilepsy	0
erectile disfunction	0
fungal infections	0
glaucoma/eye conditions	0
heart conditions	7
HIV/AIDS	0
hypertension	0
incontinence	0
infertility	7
kidney conditions	0
leukemia	7

Category	%
liver conditions	0
menopause	0
mental health	0
migraine headaches	0
multiple sclerosis	0
muscle conditions	0
nutrition	13
osteoporosis	0
pain management	0
Parkinson's Disease	0
pediatric illnesses	0
prostate conditions	0
psychoses	0
respiratory conditions	7
sexual disorders	7
sexually transmitted diseases	0
sinus conditions	0
sleep disorders	0
skin conditions	0
smoking cessation	7
thyroid conditions	0
transplants	7
weight loss	7
wound healing	0

FIG. 9d

980

HealthSiteTracker.com

- 1: Reason for Visit
- 2: User Profile
- 3: Visit Frequency
- 4: Last Visit
- 5: How Site Found
- 6: Opinion of Site
- 7: Site Assessment
- 8: Comments
- 9: Interest Topics
- 10: Sites Visited
- 11: Uses for Web
- 12: Information Use
- 13: Web Experience
- 14: Web Usage
- 15: Computer Site
- 16: Gender
- 17: Age
- 18: Marital Status
- 19: Children
- 20: Education
- 21: Employment
- 22: Income
- 23: Country
- Home
- Contact Us

982

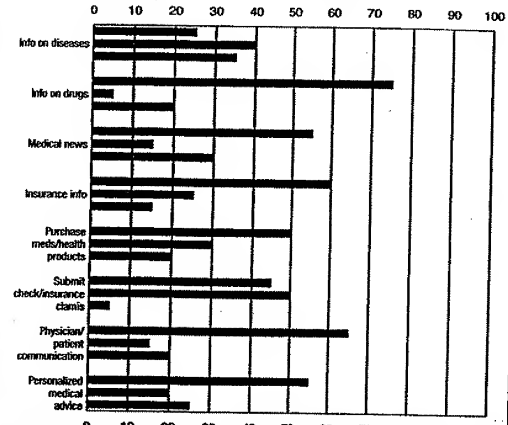
Your Company

QUESTION 11: Uses for Web

"For each of the following, please indicate if you
a. currently use the World Wide Web for this purpose
b. would like to use the World Wide Web for this purpose in the future
c. have no interest in using the World Wide Web for this purpose"

934

Past 3 Months (Cumulative)



986

Past 3 Months (Cumulative)	Currently Use (#)	Currently Use (%)	Like to Use (#)	Like to Use (%)	No Interest (#)	No Interest (%)
Information on diseases	0	0	3	75	1	25
Information on drugs	0	0	3	75	1	25
Medical news	0	0	3	75	1	25
Health insurance information	1	25	0	3	1	75
Purchase medication/healthcare products	1	25	1	25	2	50
Submit/check health insurance claims	0	0	0	0	4	100
Physician/patient communication	1	25	1	5	2	50
Personalized medical advice	0	0	25	25	25	25

FIG. 9e